

REMARKS

I. IN THE OFFICE ACTION

The Examiner objected to claims 32, 33, 45, and 46 on the grounds that claims 32 and 45 recite "the catalyst system" which the Examiner suggests should be changed to "the catalyst system further" and on the grounds that claims 33 and 46 recite "the reactant mixture" which the Examiner suggests should be changed to "the reactant mixture further."

The Examiner rejected claims 27-28 and 40-41 under the provisions of 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of which Applicant regards as the invention. The Examiner notes that claims 27 and 40 recite that the alpha olefin monomers comprise "homopolymers, terpolymers or copolymers" which the Examiner alleges are indefinite because a monomer can not comprise a polymer - the polymer being made of monomers. The Examiner notes that claims 28 and 40 recite that the alpha olefin monomers comprise "co-polymers of 1-hexene and 1-dodecene alpha olefins or co-polymers of 1-octene and 1-tetradodecene alpha olefins" which the Examiner alleges are indefinite because alpha olefin monomers can not comprise a copolymer.

The Examiner rejected claims 36, 42, and 44-48 under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1, 2, 4, 6, and 9-11 of U.S. Patent No. 6,242,395.

The Examiner rejected claims 23 and 26 under the provisions of 35 U.S.C. § 112, first

paragraph, as allegedly containing subject matter that is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, possession of the claimed invention. The Examiner alleges that the specification does not include support for a “substantially non-crystalline, ultra-high molecular weight polyolefin.

The Examiner rejected claims 23-35 under the provisions of 35 U.S.C. § 102(b) as allegedly being anticipated or, in the alternative, under the provisions of 35 U.S.C. § 103(a) as obvious over, by U.S. Patent No. 3,354,139 issued to Vandenberg (“Vandenberg”).

The Examiner rejected claims 36-48 under the provisions of 35 U.S.C. § 102(b) as allegedly being anticipated or, in the alternative, under the provisions of 35 U.S.C. § 103(a) as obvious over, by U.S. Patent No. 5,122,584 issued to Takahashi (“Takahashi”).

Applicant respectfully requests reconsideration of the claims in light of the foregoing amendments and the following remarks.

II. DISCUSSION OF REJECTIONS

A. Claim Objections

Applicant has amended claims 32 and 45 as suggested by the Examiner, however, Applicant has not amended claims 33 and 46 as suggested by the Examiner. Claims 33 and 46 already depend from a preceding claim that includes the limitation “reactant mixture” without reciting any

components or limitations to the "reactant mixture." Specifically, claims 33 and 46 depend directly from claims 23 and 36, respectively. Both claims 23 and 36 are independent claims. Additionally, neither claim 23 nor claim 36 recite the reactant mixture as having any limitations to which the term "further" should refer. In contrast, both claims 23 and 36 include limitations to the "catalyst system," thereby making proper the changes suggested by the Examiner to claims 32 and 45. Therefore, Applicant respectfully submits that the suggested changes to claims 33 and 46 are not required. Accordingly, Applicant respectfully requests that the objections to claims 32, 33, 45, and 46 be withdrawn.

B. Claim Rejections – 35 U.S.C. § 112, second paragraph

Applicant submits that the use of the open-ended phrase "comprising" permits the alpha olefin monomers to include homopolymers, terpolymers and co-polymer portions. Therefore, Applicant respectfully traverses the Examiner's rejections of claims 27, 28, 40, and 41 under 35 U.S.C. § 112, second paragraph. However, in an effort to move this case to issuance, Applicant has amended claims 27, 28, 40, and 41 such that the Examiner's reasons for rejection are no longer applicable. Accordingly, Applicant respectfully requests that the rejection of claims 27, 28, 40, and 41 under the provisions of 35 U.S.C. § 112, second paragraph, be withdrawn.

C. Double Patenting

Submitted herewith is a Terminal Disclaimer. In light of the Terminal Disclaimer, Applicant respectfully requests that the rejection of claims 36, 42, and 44-48 under the judicially created

doctrine of obviousness-type double patenting be withdrawn.

D. Claim Rejections - 35 U.S.C § 112, first paragraph

Applicant respectfully submits that claims 23 and 36 do not contain subject matter that is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, possession of the claimed invention. Applicant notes that the application, at the time it was filed, identified the polyalphaolefin, or polyolefin, as having characteristics of being substantially non-crystalline, and having an ultra-high molecular weight. In fact, on page 9 (lines 5-13) of the specification (published paragraph [0034]) Applicant discussed the "amorphous" characteristic of the polyolefin, and on page 8, line 19 - page 9, line 4 (published paragraph [0033]) Applicant discusses the ultra-high molecular weight characteristic. With respect to the term "substantially," Applicant notes that the Manual for Patent Examining Procedure expressly states that the use of the term "substantially" in a claim is not a ground for rejection under 35 U.S.C. § 112, second paragraph, when the term is viewed in connection with the general guidelines contained in the specification. See MPEP § 2173.05(b), page 2100-197, citing *In re Mattison*, 509 F.2d 563, 184 U.S.P.Q. 484 (CCPA 1975). The specification discussed the "substantially non-crystalline" characteristic of the polyolefin at page 4, lines 13-15 (published paragraph [0014]), page 7, lines 9-10 (published paragraph [0028]), page 9, lines 5-9 (published paragraph [0034]), page 16, lines 18-19 (published paragraph [0056]). Accordingly, Applicant respectfully requests that the rejection of claims 23 and 36 under the provisions of 35

U.S.C. § 112, second paragraph, be withdrawn.

E. Claim Rejections - 35 U.S.C §§ 102(b)/103(a) based upon Vandenberg

Vandenberg discloses use of "haloalkanes" for use in achieving a "substantial reduction in the molecular weight of the polymer." Col. 2, lines 1-13. Vandenberg discloses the use of the "haloalkane" in a process for forming polyethylene. Col. 1, lines 9-13.

On the other hand, Applicant's pending claims are directed to the formation of "ultra-high molecular weight" polyalphaolefins. In fact, one of the objectives of Applicant's inventions is to increase the molecular weight of the polymer. Vandenberg teaches away from forming high molecular weight polymers by expressly stating that the "haloalkanes" are used to reduce the molecular weight of the polymer. Accordingly, Applicant respectfully submits that claims 23-35 are not anticipated by, or rendered obvious over Vandenberg. Accordingly, Applicant respectfully requests that the rejections of claims 23-35 under the provisions of 35 U.S.C. § 102(b) or, in the alternative, under the provisions of 35 U.S.C. § 103(a) be withdrawn.

F. Claim Rejections - 35 U.S.C §§ 102(b)/103(a) based upon Takahashi

Takahashi discloses a process for forming ethylene copolymers. Abstract, Col. 1, lines 10-13. As mentioned above, ethylene copolymers are not ultra-high molecular weight polyalphaolefins. Additionally, Takahashi discloses the formation of a "crystalline" polymer of ethylene. Co. 5, lines 11-16.

On the other hand, Applicant's pending claims are directed to the formation of "substantially

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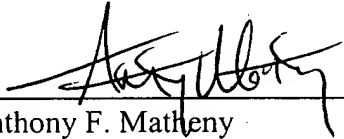
non-crystalline ultra-high molecular weight" polyalphaolefins. Accordingly, Applicant respectfully submits that claims 36-48 are not anticipated by, or rendered obvious over Takahashi. Accordingly, Applicant respectfully requests that the rejections of claims 36-48 under the provisions of 35 U.S.C. § 102(b) or, in the alternative, under the provisions of 35 U.S.C. § 103(a) be withdrawn.

III. CONCLUSION

In view of the above amendments and remarks, Applicant respectfully requests entry of the foregoing amendments and withdrawal of the objections and rejections of claims 23-48 and that a timely Notice of Allowance be issued in this case. In order to expedite the examination of this application, Applicant requests the Examiner to contact the undersigned at (713) 220-4168 to discuss any matters that can be resolved by telephone.

Respectfully submitted,

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